

ABSTRACT OF THE DISCLOSURE

This invention provides methods and compositions for producing high titer, substantially purified preparations of recombinant adeno-associated virus (AAV) that can be used as vectors for gene delivery. At the onset of vector production, AAV producer cells of this invention typically comprise one or more AAV packaging genes, an AAV vector comprising a heterologous (i.e. non-AAV) transgene of interest, and a helper virus such as an adenovirus. The AAV vector preparations produced are generally replication incompetent but are capable of mediating delivery of a transgene of interest (such as a therapeutic gene) to any of a wide variety of tissues and cells. The AAV vector preparations produced according to this invention are also substantially free of helper virus as well as helper viral and cellular proteins and other contaminants. The invention described herein provides methods of producing rAAV particles by culturing producer cells under conditions, such as temperature and pH, that promote release of virus. Also provided is a quantitative, high-throughput assay useful in the assessment of viral infectivity and replication, as well as in the screening of agent that affect viral infectivity and/or replication.